

WE CLAIM:

1. A multi-cylinder engine comprising:
  - an engine block including an outer surface configured to engage a cam chain case;
  - at least two cylinder bores that partially define at least two combustion chambers disposed within the engine block, the cylinder bores each including a first end and a second end;
  - a cylinder head mounted to the engine block and disposed adjacent to the first end of said cylinder bore; and
  - a plurality of engine valves provided on the cylinder head, wherein at least one engine valve is constructed to be cut off from the combustion chambers.
2. The multi-cylinder engine according to claim 1, wherein the engine block includes four cylinder bores arranged in-line.
3. The multi-cylinder engine according to claim 2, wherein the cylinder bores at a first end are aligned with engine valves that are constructed to be cut off from the combustion chambers.
4. A multi-cylinder engine comprising:
  - an engine portion, wherein the engine portion includes a first end, a second end;
  - a cam chain case disposed adjacent to a first end of the engine portion;
  - a working fluid port positioned at the second end of the engine portion;
  - a plurality of engine cylinders disposed between the cam chain case and the working fluid port, wherein each cylinder includes a plurality of valves;
  - a plurality of working fluid channels connecting the working fluid port to the plurality of valves, wherein at least one valve of the cylinder adjacent the cam chain case is in fluid isolation from the working fluid port.

5. The multi-cylinder engine according to claim 4, wherein the engine portion is an in-line cylinder engine.
6. The multi-cylinder engine according to claim 5, wherein the cylinder at the second end can be completely shut off while other cylinders continue to run whereas the cylinder at the first end cannot be shut off while any other cylinders continue to run.
7. A multi-cylinder engine comprising:
  - an engine including a plurality of combustion chambers, wherein at least one combustion chamber can be completely shut off and one combustion chamber can be partially shut off,
  - a shut off mechanism disposed at a first end of the engine, wherein the combustion chamber that can be completely shut off is positioned between the shut off mechanism and the combustion chamber that can be partially shut off.
8. The multi-cylinder engine according to claim 7, wherein the shut off mechanism includes working fluid channels and working fluid ports.
9. The multi-cylinder engine according to claim 7, wherein the engine includes four in-line combustion chambers each having at least four valves.
10. The multi-cylinder engine according to claim 9, wherein at least four valves of the two combustion chambers nearest a working fluid port can be cut off.
11. The multi-cylinder engine according to claim 9, wherein at most half of the valves of the two combustion chambers furthest away from the working fluid ports can be cut off.